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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20054

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of,

Advanced Television Systems
and Their Impact upon the Existing
Television Broadcast Service

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MM Docket No. 87-268

COMMENTS OF MOTOROLA

Summary: Motorola hereby files these comments in response to several of the petitions for reconsideration filed against the FCC's *Fifth Report and Order* and the *Sixth Report and Order* in the above-captioned proceeding on digital television service ("DTV").¹ In general, Motorola urges the FCC to avoid making additional DTV allotments in the 746-806 MHz band (UHF-TV channels 60-69) in order to facilitate the most expeditious recovery of this spectrum for public safety and other wireless services. Each additional DTV allotment in channels 60-69 would preclude the use of at least 6 MHz of spectrum by these new wireless users for nearly 8000 square miles and would potentially deny new wireless services to millions of consumers. If the Commission increases the DTV allotments on these channels and reduces spectrum availability for public safety and other wireless services, the value of this spectrum will be significantly reduced.

¹ *Fifth Report and Order*, FCC 97-116, released April 21, 1997 [hereinafter *Fifth R&O*].
Sixth Report and Order, FCC 97-115, released April 21, 1997 [hereinafter *Sixth R&O*].

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Comments: Collectively, the *DTV Orders* provide for the introduction of advanced digital television services and promote more efficient use of the broadcast television frequency bands. Notably, the *Sixth Report and Order* implements a plan to provide each full powered television facility with a second 6 MHz channel in which to deploy DTV services during a multiple-year transition period that will eventually result in the recovery of existing analog television channels.² In creating this allotment plan, the FCC has decided both to facilitate the early reallocation of UHF-TV channels 60-69 and to “repack” the broadcast service to channels 2 through 51.³ In so doing, the FCC noted the “urgent need” of public safety agencies for additional communications capacity.⁴

Motorola has worked extensively with the Commission staff and the broadcasting community throughout this long proceeding to help develop spectrum efficient policies for the transition to digital television services. Motorola’s goal is to ensure that this process results in the identification and reallocation of spectrum to meet the needs of public safety agencies and other land mobile users while recognizing the legitimate needs of the broadcast services. To that end, Motorola strongly supports the actions of the FCC to funnel digital broadcast services to a core spectrum block covering channels 2 through 51 and to minimize broadcast DTV allotments in the 746-806 MHz band so that this spectrum instead can be immediately provided to public safety and other wireless services. As noted in the recent *Notice of*

² *Sixth R&O* at ¶1. The Commission has targeted the year 2006 for the termination of the DTV transition period. See *Fifth R&O* at ¶¶98-100.

³ *Sixth R&O* at ¶76.

⁴ *Id.* at ¶79

Proposed Rule Making to reallocate that band, the spectrum now occupied by UHF-TV channels 60-69 is well suited for solving some of the spectrum short fall and interoperability needs of public safety agencies.⁵

Motorola believes that adherence to the FCC's DTV spectrum core concept is imperative if the goal of rapid recovery of channels 60-69 is to be accomplished. Public safety and other wireless uses of this spectrum already will face the need to provide interference protection during the DTV transition period to the existing 95 analog broadcast stations that now occupy the band as well as the 15 new DTV allotments added by the *Sixth R&O*.⁶ Allowing even more primary DTV allotments into this band may further "poison the well" until well into the 21st century for both public safety and other spectrum uses. Indeed, every additional DTV allotment potentially removes availability of 6 MHz of spectrum from public safety or other uses for approximately 8000 square miles.⁷

⁵ *Notice of Proposed Rule Making*, ET Docket No. 97-157, released July 9, 1997. [*hereinafter Reallocation Notice*]

⁶ *Reallocation Notice* at ¶2. These broadcast facilities will be protected during the DTV transition period now targeted to terminate in the year 2006. See *Fifth R&O* at ¶¶98-100.

⁷ This assumes a DTV coverage contour of 50 mile radius within which other co-channel spectrum uses would not be allowed. The actual area of denied use would, of course, depend on the protection criteria ultimately adopted in subsequent proceedings. See *Reallocation Notice* at ¶1.

Thus, Motorola opposes those few petitions for reconsideration filed by television broadcasters that request a new DTV allotment between UHF-TV channels 60-69.⁸ In reviewing these requests, the Commission must consider the impact to wireless operations, particularly public safety use, of the 746-806 MHz during the DTV transition period. The FCC should reject any solution that would expand the number of DTV allotments within channels 60-69.

On another matter, Motorola takes issue with one portion of the petition for partial reconsideration filed jointly by the Association for Maximum Service Television and the Broadcast Caucus.⁹ In that petition, it is argued that interference protection for DTV allotments should be provided to the DTV service contour or the NTSC Grade B contour, *whichever is greater*.¹⁰ The petition points out that the decision to cap the radiated power of DTV allotments to 1000 kW results in DTV service areas that may not extend to the NTSC grade B contour.

Motorola recommends that the FCC not offer interference protection to DTV stations to areas beyond actual coverage. In many cases, the NTSC grade B contour may not be relevant and, indeed, well outside the actual service area considering the antenna height and power combination used by the companion DTV allotment. While Motorola believes that

⁸ See e.g., *Petition for Reconsideration of La Dov Educational Outreach, Inc.*, *Petition for Reconsideration of Fox Television Stations Inc.*, *Petition of Jovon Broadcasting Corporation for Reconsideration*, and *Petition for Reconsideration of WWAC, Inc.*

⁹ *Petition for Clarification and partial Reconsideration of the Fifth and Sixth Reports and Orders Submitted by the Association of Maximum Service Television, Inc., the Broadcasters Caucus and Other Broadcasters.*

¹⁰ *Id.* at p. 29.

FCC clarification on this point is necessary, it urges the FCC to protect “real” service areas and not hypothetical contours.¹¹ Such an approach will ensure that the DTV allocation is used in the most efficient manner.

Finally, Motorola supports many of the recommendations offered by the Association of America’s Public Television Stations and Public Broadcasting Service to provide flexibility in the deployment of DTV service.¹² In part, this petition recommends that the FCC: 1) allow public television stations provided with DTV allotments outside the spectrum core to select other channel(s) for DTV service that are within the core even if the alternative does not fully comport with the FCC’s standards for replicating NTSC coverage area or NTSC interference protection, 2) permit public television stations to convert their NTSC channel to DTV service without constructing on the DTV allotment, and 3) permit a licensee with both its NTSC and DTV allotments outside the core to defer construction of its DTV station until its permanent DTV channel is assigned. Such policies recognize the difficult economics involved with a two step migration to digital service. More importantly, they could accelerate recovery of UHF-TV channels 60-69 for public safety and other wireless use. All broadcast stations, not only

¹¹ To this end, Motorola also suggests that DTV stations should be required to notify the FCC of the power levels that they will actually operate with. It is likely that cost considerations will result in some stations, particularly those that will eventually relocate from channels outside the DTV core, choosing not to operate at the maximum permitted power during the transition period. If so, such stations should be protected only to their actual DTV service contour and not the predicted full-power contour which will not be achieved.

¹² *Petition for Reconsideration and Clarification of Association of America’s Public Television Stations and Public Broadcasting Service.*

public broadcasters, should be permitted to decline to construct DTV facilities on channels 60-69 provided that they inform the FCC so that this spectrum could be made available for alternative uses.

Respectfully Submitted,



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July 18, 1997

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